

The Clock is Ticking: **It's Time to END TB**

TB Info Editorial

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World TB day is observed on 24th of March every year. This year's theme is "The Clock is Ticking". This day is designed to raise public awareness about the TB epidemic, which is still the number one killer globally among infectious diseases. Tuberculosis is a curable and preventable disease. The global burden of the disease attributes to delay and poor diagnostic and inadequate treatments, which leads to the severity of the disease with an increase in mortality rate and the spike in transmission and development of drug resistance. TB does not spare any country in the world, even though it unreasonably impacts LMIC (lower- to middle-income countries). A total of 3% of global TB cases occur in the WHO European Region. In the US, about 13 million people live with latent TB.



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If we look at the response and aggressiveness the world has laid down to address the Covid19 pandemic, the same show has not been put up for TB even though it is a century-old problem globally. Both covid19 and TB has the capacity to stress healthcare systems. The current pandemic has seen rapid diagnosis and public awareness for disease control and containment, whereas insufficient and inadequate diagnostics in Tuberculosis keeps fuelling the on-going disease transmission in many settings. The critical ingredients of infectious disease control are creating an ecosystem of trained healthcare workers in recognizing the disease and an effective surveillance system to monitor the behaviour. This requires a tremendous effort from the regional and central level and must be backed by financial and human resources.

Tuberculosis at large has never seen a data and knowledge sharing platform that Covid-19 has witnessed. The lack of coordination and sharing of information and data at the national and international level has created barriers to informative datasets that could have facilitated and accelerated quality research in Tuberculosis. TB has seen a long-standing paucity of funding to address different issues associated with the disease ranging from surveillance, reporting, diagnosis, treatment, policy and research, to name a few.

The current pandemic will change the future of vaccine discovery and development. There is a paradigm shift in vaccine technology. The accelerated speed at which multiple vaccines have come up to address the current pandemic is overwhelming. It has shown when all the resources are at their disposal how fast vaccine development can proceed when there is a global emergency. Can we imbibe this learning for other neglected diseases such as Tuberculosis?

There is a critical need for new TB vaccines that are more effective than the Bacille Calmette-Guérin (BCG) vaccine in preventing pulmonary and extrapulmonary forms of TB in all age groups. THE century-old BCG vaccine is immunoprotective against extra pulmonary paediatric TB, including meningitis. However, the protection provided against pulmonary TB in adults is variable. New vaccines are also required keeping in view the slow decline in TB incidence globally and the persistent threat of MDR-TB.

The article from [Prof Madhukar Pai](#) in this issue is an eye-opener, as he rightly said, “It’s time to use Covid-19 innovations and systems to reimagine TB care”. The long duration of the current TB treatment and side effects associated with it leads to non-compliance, ultimately resulting in MDR and XDR TB. There is a greater need for developing a shorter regimen. Article by [Drs Shingar and Pawan Sharma](#) has thrown light on the current effort on shortening the treatment duration from 6 months to 4 months as shown by a phase 3 clinical trial study (Study 31/A5349). The study included eight weeks of daily treatment with high-dose rifapentine, isoniazid, pyrazinamide, and moxifloxacin and nine weeks of daily treatment with rifapentine, isoniazid, and moxifloxacin. The treatment was well-tolerated and found to be non-inferior in efficacy to the standard six-month regimen (2RHZE/4RH), which includes eight weeks of daily treatment with rifampin, isoniazid, pyrazinamide, and ethambutol and 18 weeks of daily treatment with rifampin and isoniazid. The world is overwhelmed by vaccine development to address the current pandemic. The article by [Dr Saheed Jawahar](#) has reflected the current advancement in vaccine development for Tuberculosis. Countries with high levels of Tuberculosis face a significant comorbidity burden from both non-communicable and communicable diseases. [Prof M V Hosur](#) article talks about the syndemic nature of TB and HIV and how the mortality rate is three-fold higher than just Mtb infection. Tuberculosis is not restricted to human; it is seen in animal too. [Dr Rudrodip Majumdar](#) article has emphasized Tuberculosis in captive elephants, which has emerged as a serious infectious zoonotic disease in the past few decades.

The “Clock is Ticking”, and we need to put our act together before it’s too late.